SERVICE BULLETIN REVISION NOTICE

AIR — HIGH PRESSURE COMPRESSOR (HPC) STAGE 7 AND 10 SOLENOID VALVES — INTRODUCTION OF ALTERNATIVE SOLENOID VALVE WITH IMPROVED RELIABILITY

Turbojet Engine Service Bulletin No. V2500-ENG-75-0109 Revision No. 2 dated March 22, 2019.

Revision History

Original Issue September 30, 2008

Revision 1 dated July 31, 2009

Revision 2 dated March 22, 2019

Reason for the Revision

To update Vendor Service Bulletin information in the References section.

To update the Service Bulletin format to current standards and as a result, the Vendor Service Bulletins are no longer attached.

To add Vendor Contact information.

To update the Accomplishment Instructions to add return to vendor instructions.

Effect of Revision on Prior Compliance

None.

This is a Complete Revision (Not Applicable to the SGML version)

The format of this Service Bulletin has been changed from previous versions. This revision shows flow bars and the revision date on the bottom of every page. Technical changes incorporated in this revision are marked with revision bars. The contents are in accordance with the list of effective pages.

MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5

BULLETIN ISSUE SEQUENCE

V2500 Series 75-0109

Page	Revision No.	Date
1 thru 13	2	March 22/19

A copy of this Revision Notice and any future revision notices must be filed as a permanent record with your copy of the subject bulletin.

SERVICE BULLETIN

AIR — HIGH PRESSURE COMPRESSOR (HPC) STAGE 7 AND 10 SOLENOID VALVES — INTRODUCTION OF ALTERNATIVE SOLENOID VALVE WITH IMPROVED RELIABILITY

MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5

BULLETIN ISSUE SEQUENCE

V2500 Series 75-0109

ATA NUMBER

75-32-51

Export Classification: Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

Compliance Category

7

P&W Distribution Code

V2500

Summary

The purpose of this Service Bulletin is to introduce alternative High Pressure Compressor (HPC) stage 7 and 10 solenoid valves with improved reliability.

Planning Information

Effectivity Data

Engine Models Applicable

V2500-A1
Engine Serial Nos. V0001 thru V0361

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5
Engine Serial Nos. V10001 thru V13159
Engine Serial Nos. V15001 thru V15111

V2525-D5, V2528-D5
Engine Serial Nos. V20001 thru V20285

Concurrent Requirements

There are no concurrent requirements.

Reason

1. Condition: To introduce modified Meggitt/Dunlop HPC stage 7 and 10 solenoid valves.
2. Background: The current production standard of the HPC stage 7 and 10 solenoid valves can be affected by contamination and corrosion of the Nickel plated surfaces which results in reduced reliability.
   A. There are three main reliability issues with the current production standard HPC stage 7 and 10 solenoid valves:
      (1) Filter clogging from contamination predominately incoming via the bleed valves which in turn affects solenoid response time.
      (2) Contamination-induced wear of the piston seals and piston bore which causes high leakage rates.
      (3) Corrosion of the plunger and core caused by damage to the Nickel plating.
3. Objective: Introduction of this Service Bulletin is designed to improve the reliability.
4. Substantiation: The changes introduced by this Service Bulletin were the subject of satisfactory engineering analysis and testing. This Service Bulletin complies with the applicable engine certification basis.
5. Effects of Bulletin on:

   Removal/Installation: Not Affected.

   Disassembly/Assembly: Not Affected.

   Cleaning: Not Affected.

   Inspection/Check: Not Affected.

   Repair: Not Affected.

   Testing: Not Affected.

6. Supplemental Information

None.

Description

1. Functionality of the new unit is identical to the current Bill Of Material HPC stage 7 and 10 solenoid valves. The new standard of HPC stage 7 and 10 solenoid valves incorporates coarser filters on the servo and exhaust vents in order to allow more contamination to exit the solenoid valve. An amended electroless Nickel plating process for the plunger and core introduces an additional PTFE-based Nickel coating for improved protection. A new nameplate to replace the current vibro etching marking process. Additionally, this opportunity has been used to replace the current wirelocking with safety cabling. In addition to the full modification, which will be introduced for production, there is also a filter-only change version of this change, which will be introduced for in service only.
2. This Service Bulletin is divided into two parts and covers the Meggitt Service Bulletins as follows:

   Part 1 – Covers the partial embodiment of the HPC stage 7 and 10 solenoid valve modification.

For HPC Stage 7 Solenoid Valve

Meggitt Service Bulletin Number	Modify from Old PN	Modify to New PN	Description
75-48	AC69572	AA1056-00	To resolve the problem of contamination (filter-only change version)

For HPC Stage 10 Solenoid Valve

Meggitt Service Bulletin Number	Modify from Old PN	Modify to New PN	Description
75-51	AC69574	AA1064-00	To resolve the problem of contamination (filter-only change version)

Part 2– Covers the full embodiment of the HPC stage 7 and 10 solenoid valve modification.

For HPC Stage 7 Solenoid Valve

Meggitt Service Bulletin Number	Modify from Old PN	Modify to New PN	Description
75-49	AC69572	AA1051-00	To resolve the problem of contamination and corrosion
75-50	AA1056-00	AA1051-00	To upgrade a post SB 75-48 solenoid valve to the SB 75-49 standard and resolve the problem of corrosion

For HPC Stage 10 Solenoid Valve

Meggitt Service Bulletin Number	Modify from Old PN	Modify to New PN	Description
75-52	AC69574	AA1060-00	To resolve the problem of contamination and corrosion
75-53	AA1064-00	AA1060-00	To upgrade a post SB 75-51 solenoid valve to the SB 75-52 standard and resolve the problem of corrosion

NOTE: New production HPC stage 7 and 10 solenoid valves fully embodying this Service Bulletin will not be annotated with a modification part and can be considered equivalent to Part 2.

Compliance

Category 7

Accomplish when supply of superseded parts has been depleted.

Approval Data

The part number changes and/or part modifications specified in the Accomplishment Instructions and Material Information sections of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) given.

Manpower

1. In Service

..... Not Applicable.

2. At Overhaul

..... Not Applicable.

Weight and Balance

1. Weight Change

   None.

2. Moment Arm

   No Effect.

3. Datum

   Engine Front Mount Centerline (Power Plant Station (PPS) 100).

Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

Software Accomplishment Summary

Not Applicable.

References

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

1. ATA Locator — 75-32-51, 75-32-53.
2. V2500 Standard Practices and Processes, P&W Ref. PN 2A4414, Chapter/Section 70-00-00.
3. Airbus A319/A320/A321 Aircraft Maintenance Manual, Chapters 75-32-51, 75-32-53 Removal/Installation of solenoid valve.
4. Boeing MD-90 Aircraft Maintenance Manual, Chapter 75-33-51 Removal/Installation of solenoid valve.
5. IAE V2500-A1/A5 Engine Manuals (E-V2500-1IA, E-V2500-3IA), Chapter/Section 72-00-32, Removal/Installation of solenoid valve.
6. Meggitt Service Bulletins 75-48, 75-49, 75-50, 75-51, 75-52 and 75-53.

Other Publications Affected

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

1. Airbus A319/A320/A321 Aircraft Illustrated Parts Catalogue (AIPC) will be revised, to add the new part number.
2. Boeing MD-90 Aircraft Illustrated Parts Catalogue (AIPC) will be revised, to add the new part number.
3. IAE V2500 Engine Illustrated Parts Catalogues (EIPC) will be revised, to add the new part number.

Interchangeability of Parts

Old and new parts are directly interchangeable.

Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

Material Information

Material — Price and Availability

1. Part prices were not available at the time of Service Bulletin publication. Contact IAE Spares Management & Logistics for firm quotations.
2. There is no kit provided to do this Service Bulletin.
3. Part availability information is provided in material data Instructions — Disposition.

Industry Support Program

Not Applicable.

The material data that follows is for each engine.

For V2500-A1 Engines:

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
AA1056-00	3	*	.VALVE — SOLENOID STAGE 7, HPC	AC69572 (75-32-51-01-100 A)	(1)(C)(M)
			OR		
AA1051-00	3	*	.VALVE — SOLENOID STAGE 7, HPC	AC69572 (75-32-51-01-100 A)	(1)(C)(M)
			OR		
AA1051-00	3	*	.VALVE — SOLENOID STAGE 7, HPC	AA1056-00 (75-32-51-01-100 C)	(1)(C)(M)
AA1064-00	1	*	.VALVE — SOLENOID STAGE 10, HPC	AC69574 (75-32-53-01-400 A)	(1)(C)(M)
			OR		
AA1060-00	1	*	.VALVE — SOLENOID STAGE 10, HPC	AC69574 (75-32-53-01-400 A)	(1)(C)(M)
			OR		
AA1060-00	1	*	.VALVE — SOLENOID STAGE 10, HPC	AA1064-00 (75-32-53-01-400 C)	(1)(C)(M)

The material data that follows is for each engine.

For V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5 Engines:

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
AA1056-00	3	*	.VALVE — SOLENOID STAGE 7, HPC	AC69572 (75-32-51-01-100)	(1)(C)(M)
			OR		
AA1051-00	3	*	.VALVE — SOLENOID STAGE 7, HPC	AC69572 (75-32-51-01-100)	(1)(C)(M)
			OR		
AA1051-00	3	*	.VALVE — SOLENOID STAGE 7, HPC	AA1056-00 (75-32-51-01-100 B)	(1)(C)(M)
AA1064-00	1	*	.VALVE — SOLENOID STAGE 10, HPC	AC69574 (75-32-53-01-400)	(1)(C)(M)
			OR		
AA1060-00	1	*	.VALVE — SOLENOID STAGE 10, HPC	AC69574 (75-32-53-01-400)	(1)(C)(M)
			OR		
AA1060-00	1	*	.VALVE — SOLENOID STAGE 10, HPC	AA1064-00 (75-32-53-01-400 B)	(1)(C)(M)

The material data that follows is for each engine.

For V2525-D5, V2528-D5 Engines:

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
AA1056-00	3	*	.VALVE — SOLENOID STAGE 7, HPC	AC69572 (75-32-51-01-100)	(1)(C)(M)
			OR		
AA1051-00	3	*	.VALVE — SOLENOID STAGE 7, HPC	AC69572 (75-32-51-01-100)	(1)(C)(M)
			OR		

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
AA1051-00	3	*	.VALVE — SOLENOID STAGE 7, HPC	AA1056-00	(1)(C)(M)
AA1064-00	1	*	.VALVE — SOLENOID STAGE 10, HPC	AC69574 (75-32-53-01-400)	(1)(C)(M)
			OR		
AA1060-00	1	*	.VALVE — SOLENOID STAGE 10, HPC	AC69574 (75-32-53-01-400)	(1)(C)(M)
			OR		
AA1060-00	1	*	.VALVE — SOLENOID STAGE 10, HPC	AA1064-00 (75-32-53-01-400 B)	(1)(C)(M)

Instructions/Disposition Code Statements:

Parts Modification Conditions

Estimated part prices are provided when they are available at time of publication. The Estimate of Unit Price is only for planning purposes and does not constitute a firm quotation. An asterisk (*) is shown where part pricing information was unavailable. In either case, contact IAE Spares for firm quotations.

(1) The new part can be obtained by modification of the old part as specified in the Accomplishment Instructions.

Spare Parts Availability

(C) The old part will continue to be supplied.

(M) It is possible to get the new part only by modification.

Vendor Services or Special Components/Materials

P&W Designation	Vendor Designation	Name	Vendor Name & Address
AA1051-00	AA1051-00	Valve — Solenoid Stage 7, HPC	Meggitt Control Systems Coventry — Repair and Overhaul Holbrook Lane Coventry CV6 4QY England Tel: + 44 (0) 24 76294270 Fax: + 44 (0) 24 76683236 OR Meggitt (North Hollywood) Inc. — Repair and Overhaul 12838 Saticoy St. North Hollywood, CA 91605 USA Tel: + 1 (818) 765 8160 Fax: + 1 (818) 759 2190 OR Meggitt Aerospace Asia Pacific (MAAP) 1A Seletar Aerospace Link Seletar Aerospace Park Singapore 797552 Tel: + 65 65117200 Fax: + 65 65427069
AA1056-00	AA1056-00		
AA1060-00	AA1060-00	Valve — Solenoid Stage 10, HPC	
AA1064-00	AA1064-00		
	75-48	Meggitt Service Bulletin Numbers	
	75-49		
	75-50		
	75-51		
	75-52		
	75-53		
Vendor Manufacturer's Code: U8976 Vendor Manufacturer's Code: 79318 See Illustrated Parts Catalog Vendor Manufacturer's Code List			

Tooling — Price and Availability

Special tools are not required to accomplish this Service Bulletin.

Reidentified Parts

Not Applicable.

Other Material Information Data

Not Applicable.

Accomplishment Instructions

1. Modify Instructions

   A. Part 1

      (1) Modify the HPC Stage 7 Solenoid Valve, PN AC69572 to PN AA1056-00, as specified in Reference 6, Meggitt Service Bulletin 75-48, or send the solenoid valve to the vendor listed in the Vendor Services or Special Components/Materials section.

      (2) Modify the HPC Stage 10 Solenoid Valve, PN AC69574 to PN AA1064-00 as specified in Reference 6, Meggitt Service Bulletin 75-51, or send the solenoid valve to the vendor listed in the Vendor Services or Special Components/Materials section.

   B. Part 2

      (1) Modify the HPC Stage 7 Solenoid Valve, PN AC69572 to PN AA1051-00 or PN AA1056-00 to PN AA1051-00 as specified in Reference 6, Meggitt Service Bulletins 75-49 and 75-50, or send the solenoid valve to the vendor listed in the Vendor Services or Special Components/Materials section.

      (2) Modify the HPC Stage 10 Solenoid Valve, PN AC69574 to PN AA1060-00 or PN AA1064-00 to AA1060-00 as specified in Reference 6, Meggitt Service Bulletins 75-52 and 75-53, or send the solenoid valve to the vendor listed in the Vendor Services or Special Components/Materials section.

2. Assembly Instructions

   A. For the correct Removal/Installation procedures of the HPC stage 7 and 10 solenoid valve, refer to one of the manuals as specified below:

      (1) Reference 3, Airbus A319/320/321 Aircraft Maintenance Manual, Chapter/Section 75-32-51 and 75-32-53 Removal/Installation.

      (2) Reference 4, Boeing MD-90 Aircraft Maintenance Manual, Chapter/Section 75-33-51 Removal/Installation.

      (3) Reference 5, IAE V2500-A1/A5 Engine Manual, Chapter/Section 72-00-32, Removal/Installation.

   B. Refer to further information as specified in Reference 6, Meggitt Service Bulletins 75-48, 75-49, 75-50, 75-51, 75-52, and 75-53.

3. Recording Instructions

   A. A record of accomplishment is required.

Appendix

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC07VI002	IAE
1	EC07VI002-01	IAE
2	EA18VG027	LA/RCM

Number values shown in parentheses adjacent to U.S. values are International System of units (SI) equivalents.

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, the following Technical Publications cross reference table is provided.

Technical Publications Cross Reference Table

Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
ENGINE MANUAL — A1, A5	All	E-V2500-1IA	2A4407
CMM-EHC — A1, A5	All	EHC-V2500-1IA	2A4409
CMM-FN — A1, A5	All	FN-V2500-1IA	2A4410
CMM-MMC — A1, A5	All	MECH-V2500-1IA	2A4411
CMM-THD — A1, A5	All	THD-V2500-1IA	2A4412
TLM — A1, A5	All	T-V2500-1IA	2A4408
ENGINE MANUAL — D5	All	E-V2500-3IA	2A4416
CMM-EHC — D5	All	EHC-V2500-31A	2A4418
CMM-FN — D5	All	FN-V2500-3IA	2A4419
CMM-MMC — D5	All	MECH-V2500-3IA	2A4420
CMM-THD — D5	All	THD-V2500-3IA	2A4423
TLM — D5	All	T-V2500-3IA	2A4417
SPPM (SPM) — A1, A5, D5	All	SPP-V2500-1IA	2A4414
EIPC — A1	V2500-A1102Q00	S-V2500-1IA	2A4427

Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
EIPC — A5	V2522/V2524/V2527M-AQ02	S-V2500-6IA	2A4428
	V2522/V2524/V2527M-AQ03	S-V2500-6IB	
	V2522/V2524/V2527M-SQ02	S-V2500-6SA	
	V2522/V2524/V2527M-SQ03	S-V2500-6SB	
	V2522/V2524/V2527M-SQ04	S-V2500-6NA	
	V2522/V2524/V2527M-SQ05	S-V2500-6NB	
	V2527/V2527E-AQ02	S-V2500-7IA	
	V2527/V2527E-AQ03	S-V2500-7IB	
	V2527/V2527E-SQ02	S-V2500-7SA	
	V2527/V2527E-SQ03	S-V2500-7SB	
	V2527/V2527E-SQ04	S-V2500-7NA	
	V2527/V2527E-SQ05	S-V2500-7NB	
	V2530-AQ02	S-V2500-2IA	
	V2530-AQ03	S-V2500-2IB	
	V2530-SQ02	S-V2500-2SA	
	V2530-SQ03	S-V2500-2SB	
	V2530-SQ04	S-V2500-2NA	
	V2530-SQ05	S-V2500-2NB	
	V2533-AQ02	S-V2500-5IA	
	V2533-AQ03	S-V2500-5IB	
	V2533-SQ02	S-V2500-5SA	
	V2533-SQ03	S-V2500-5SB	
	V2533-SQ04	S-V2500-5NA	
	V2533-SQ05	S-V2500-5NB	
EIPC — D5	V2525/V2528-AQ02	S-V2500-3IA	2A4426
	V2525/V2528-AQ03	S-V2500-3IB	
	V2525/V2528-AQ04	S-V2500-3IC	